

JC04 Rec'd PCT/PTO



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Nobuo TOMIOKA et al.

Group Art Unit : 2171

Appl. No. : 10/506,610 ✓

(U.S. National Stage of PCT/JP03/002847)

I.A. Filed : March 11, 2003

Examiner : Not Yet Assigned

For : METHOD OF GENERATING MOLECULE-FUNCTION NETWORK

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Service Window, Mail Stop AMENDMENT  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-

1.98, Applicants hereby bring the following information to the attention of the Examiner

in charge of the above-identified application, which includes information cited and

discussed in the specification, the International Search Report, and the International

Preliminary Examination Report issued in connection with International Patent

Application No. PCT/JP03/002847, of which the present application is the U.S. National

Stage Application. Copies of the International Search Report and the International

Preliminary Examination Report were enclosed with the papers when entering the

National Stage on September 10, 2004. A copy (in English) of the International

Preliminary Examination Report is enclosed herewith. The Examiner is invited to review

these materials to inspect the relevance indicated during international examination with

respect to the documents cited therein. The following is a list of the documents cited in

the above-noted documents:

International Patent Application No. PCT/JP01/07830, which was published as International Patent Publication No. WO 02/23395, and entered U.S. National Stage and was published as U.S. Patent Application Publication No. 2004/0024772.

Applicants note that this document is cited on page 6 of the specification of the present application;

An Article by FUKAGAWA et al., entitled "Development of Workbench System for Support of Construction of Gene Control Network," Monthly Tissue Culture Engineering, February 25, 2001, Vol. 27, No. 2, pp. 68-71; and

An Article by FUKAGAWA, entitled "Platform for Gene Network Analysis," Papers for the 18<sup>th</sup> Biotechnology Symposium, September 28, 2000, pp. 18-21.

The category of relevance, pertinent portions, and claims to which each document is relevant, as ascertained by the International Examiner are set forth in the International Preliminary Examination Report. Applicants notes that copies of the above-mentioned documents are not enclosed herein because the documents are unavailable to Applicants at the present time.

Further, Applicants hereby make of record the disclosure statements filed August 25, 2005, February 2, 2004, and November 3, 2003 in related U.S. Patent Application No. 10/363,689.

The Examiner is respectfully requested to consider the documents cited in the related application, and to make the documents cited therein of record in the instant application. Applicants note that documents cited in the above-mentioned disclosure statements have been submitted in related Application No. 10/363,689.

Taiwanese Patent Publication No. 331612, together with an English translation of the same;

Y. SHIBAGAKI et al., "A Graphical Representation System Assisting at Gene Regulatory Network Construction", Proceedings of the 14th Annual Conference of JSAI, 2000, pp. 543-544 (July 3, 2000), together with an English language translation;

S. GOTO et al., "Organizing and Computing Metabolic Pathway Data in Terms of Binary Relations", Pacific Symposium on Biocomputing, (2nd), Maui, pp. 175-186 (1996);

HIRAYAMA, "Bunshi Sekkei no tameno Chishiki Data System no Koujika-hou no Kaihatsu; Lead Kagoubutsu Hakken no tameno Keiken-soku no Riron-ka ni kansuru Kenkyuu," Seitai Seigyo Busshitsu no Bunshi Sekkei to Seimitsu Gousei no tameno Kiban Gijutsu no Kaihatsu ni kansuru Kenkyuu (1<sup>st</sup> period) Seika Houkokusho, 1993-1995 ed., 1996, pp. 210-221, together with an English language translation of the same;

OKUBO et al., "Rensai Genome Data Base Keisan-ki ni Kakunou sareta Seimei no Sugata; Dai 6kai, Hatsugen Joho Database to Clustering; Idenshi no Furumai no Hyougen to sore ni motozuku Idenshi no Bunrui," bit, December 1, 1999, Vol. 399, pp. 80-86, together with a partial English language translation of the same; and

NAKA, "Genome Kinou Kenkyuu Protocol Micro Array, PCR, Bio-informatics no Saishin Gijutsu kara SNP, Model Seibutsu no Kaiseki made; Chapter 3, Hito Genome Bio-informatics; 1. Genome Informatics," Jikken Igaku separate volume, Post Genome Jidai no Jikken Kouza 1, April 10, 2000, pp. 163-167, together with a partial English language translation of the same.

Accordingly, pursuant to 37 C.F.R. 1.98(d), copies of the documents are not being submitted herewith, and the Examiner is invited to review and consider the documents in the related application. Of course, should any of the documents not be readily available to the Examiner, the Examiner is requested to contact the undersigned and additional copies will be submitted.

For the convenience of the Examiner, the above-mentioned documents cited in the related application are listed on the attached Forms PTO-1449. The Examiner is requested to initial the Form PTO-1449, and to return the initialed copy with the next communication from the U.S. Patent and Trademark Office.

In addition, Applicants submit a copy of a Supplementary European Search Report dated July 28, 2005, with respect to related European Patent Application No. EP 01 96 5563, in which the following documents were cited:

An Article by KANEHISA, entitled "Toward Pathway Engineering: A New Database of Genetic and Molecular Pathways," Science & Technology Japan, No. 59, pp. 34-39 (1996);

An Article by TAKAI-IGARASHI et al., entitled "A Pathway Finding System for the Cell Signaling Networks Database," In Silico Biology, Vol.1, pp. 129-146 (1999);

An Article by HISHIGAKI, entitled "Interaction-Based Analysis of Protein Function and Network," Genome Informatics, Vol. 10, pp. 257-258 (1999);

An Article by AHO et al., entitled "Data Structures and Algorithms," Data Structures and Algorithms, pp. 198-202 (1983); and

International Patent Publication No. WO 00/48092, together with patent family members U.S. Patent No. 6,745,204 and U.S. Patent Application Publication No. 2002/0072865.

The category of relevance, pertinent portions, and claims to which each document is relevant, as ascertained by the European Examiner are set forth in the European Search Report.

Further to 37 C.F.R. §1.98 (a)(2)(ii), copies of the U.S. patent and the U.S. patent application publications are not enclosed herewith. However, if any copies are needed, the Examiner is respectfully requested to contact the undersigned.

Applicants respectfully request that the Examiner consider the above material and cited the same. Copies of the above-noted foreign document and journal articles, are enclosed together with a duly completed Form PTO-1449. Further, copies of all of the documents cited in the International Search Report should have been forwarded to the U.S. Patent and Trademark Office by the International Bureau.

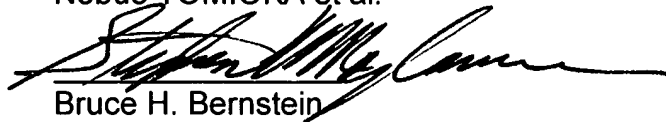
The Examiner is requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the attached Form PTO-1449. Applicants respectfully request that the Examiner include a copy of the initialed Form PTO-1449 with the next official communication from the U.S. Patent and Trademark Office in the present application.

Applicants note that an Office Action on the merits has not issued in the present application, and thus no fee is believed necessary to ensure consideration of the submitted material. However, if an Office Action on the merits has issued and is crossing this statement in the mail, the undersigned hereby authorizes the

Commissioner to charge any fee necessary for the consideration of this statement, including any payment under 37 C.F.R. 1.17(p) to Deposit Account No. 19-0089.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
Nobuo TOMIOKA et al.



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FORM PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
P25921Application No.  
10/506,610INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(Use several sheets if necessary)

Applicant  
Nobuo TOMIOKA et al.Filing Date  
March 11, 2003Group  
2171

## U.S. PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		6 7 4 5 2 0 4	06/01/04	HOGUE et al.			
	2002	0 0 7 2 8 6 5	06/13/02	HOGUE et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
		3 3 1 6 6 1 2	05/11/98	TAIWAN			
	00	/ 4 8 0 9 2	08/17/00	W.I.P.O			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1	An Article by FUKAGAWA et al., entitled "Development of Workbench System for Support of Construction of Gene Control Network," Monthly Tissue Culture Engineering, February 25, 2001, Vol. 27, No. 2, pp. 68-71.
	2	An Article by FUKAGAWA, entitled "Platform for Gene Network Analysis," Papers for the 18 <sup>th</sup> Biotechnology Symposium, September 28, 2000, pp. 18-21.
	3	Y. SHIBAGAKI et al., "A Graphical Representation System Assisting at Gene Regulatory Network Construction", Proceedings of the 14th Annual Conference of JSAI, 2000, pp. 543-544 (July 3, 2000), together with an English language translation.
	4	S. GOTO et al., "Organizing and Computing Metabolic Pathway Data in Terms of Binary Relations", Pacific Symposium on Biocomputing, (2nd), Maui, pp. 175-186 (1996).
	5	HIRAYAMA, "Bunshi Sekkei no tameno Chishiki Data System no Koujika-hou no Kaihatsu; Lead Kagoubutsu Hakken no tameno Keiken-soku no Riron-ka ni kansuru Kenkyuu," Seitai Seigyo Busshitsu no Bunshi Sekkei to Seimitsu Gousei no tameno Kiban Gijutsu no Kaihatsu ni kansuru Kenkyuu (1 <sup>st</sup> period) Seika Houkokusho, 1993-1995 ed., 1996, pp. 210-221, together with an English language translation of the same.
	6	OKUBO et al., "Rensai Genome Data Base Keisan-ki ni Kakunou sareta Seimei no Sugata; Dai 6kai, Hatsugen Joho Database to Clustering; Idenshi no Furumai no Hyougen to sore ni motozuku Idenshi no Bunrui," bit, December 1, 1999, Vol. 399, pp. 80-86, together with a partial English language translation of the same.
	7	NAKA, "Genome Kinou Kenkyuu Protocol Micro Array, PCR, Bio-informatics no Saishin Gijutsu kara SNP, Model Seibutsu no Kaiseki made; Chapter 3, Hito Genome Bio-informatics; 1. Genome Informatics," Jikken Igaku separate volume, Post Genome Jidai no Jikken Kouza 1, April 10, 2000, pp. 163-167, together with a partial English language translation of the same.
	8	An Article by KANEHISA, entitled "Toward Pathway Engineering: A New Database of Genetic and Molecular Pathways," Science & Technology Japan, No. 59, pp. 34-39 (1996).
	9	An Article by TAKAI-IGARASHI et al., entitled "A Pathway Finding System for the Cell Signaling Networks Database," In Silico Biology, Vol.1, pp. 129-146 (1999).
	10	An Article by HISHIGAKI, entitled "Interaction-Based Analysis of Protein Function and Network," Genome Informatics, Vol. 10, pp. 257-258 (1999).
	11	An Article by AHO et al., entitled "Data Structures and Algorithms," Data Structures and Algorithms, pp. 198-202 (1983).

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

